



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,086	04/18/2007	Wendy Mackay	017346-0187	8293

22428 7590 01/13/2011
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

TSENG, CHARLES

ART UNIT	PAPER NUMBER
----------	--------------

2628

MAIL DATE	DELIVERY MODE
-----------	---------------

01/13/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,086	Applicant(s) MACKAY ET AL.	
	Examiner CHARLES TSENG	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Specification

1. Examiner notes a new Abstract has been submitted. The objection to the specification is accordingly withdrawn.

Claim Objections

2. Examiner notes claim 1 has been cancelled.

However, new claim objections have been made as set forth in the following Detailed Action.

112 Rejection

3. Examiner notes claims 1-15 and 17 have been cancelled. The 35 U.S.C. 112 Rejection to the claims is accordingly withdrawn.

101 Rejection

4. Examiner notes claims 1-15 and 17 have been cancelled. The 35 U.S.C. 101 Rejection to the claims is accordingly withdrawn.

103 Rejection

5. Applicant's arguments with respect to claim 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim 18 is now rejected under 35 U.S.C. 103(a) as being unpatentable over Mackay et al., *The A-Book, An Augmented Laboratory Notebook for Biologists*, ERCIM News No. 46, July 2001 (hereinafter "Mackay") in view of Fitzmaurice, *Situated Information Spaces and Spatially Aware Palmtop*, Communications of the ACM, Association for Computing Machinery, New York, Vol. 36, No. 7, July 1, 1993 and Rekimoto et al. (U.S. Patent 6,795,060, hereinafter "Rekimoto").

Applicants argue Mackay and the references fail to disclose generating position data in connection with handwritten data. Examiner respectfully disagrees.

Mackay discloses a computer-augmented laboratory notebook (page 52) with a prototype having a WACOM graphics tablet to capture hand-writing (page 53/Fig. 2). Mackay discloses the electronic notebook captures an electronic or digital version of each stroke and associates the stroke with the appropriate page (page 53). Mackay further explains the electronic notebook is capable of recording underlined text to allow other users to click and follow a link to additional information (page 53/Fig. 5) and it must be understood the electronic notebooks records position data to ensure the underlined text and associated links are displayed at the proper location of the page.

Applicants further argue the references fails to disclose a personal digital assistant in conjunction with the user interface device with means for determining the PDA position. Examiner respectfully disagrees.

Fitzmaurice discloses a personal digital assistant in the form of an integrated palmtop unit/hand-held monitor with an input controller and output display (page 43/col. 1). Fitzmaurice discloses the palmtop unit serves as an information lens near physical

Art Unit: 2628

objects and the contents of the display (primary data) are affected by a user's gestures and movements (page 43/col. 1). Fitzmaurice further discloses the palmtop unit allows users to electronically annotate objects (secondary data) (page 46/col. 2-3) with pen input enabling users to handwrite electronic notes and annotations where the notes and associations are associated with objects displayed (primary data) by the palmtop unit (page 47/col. 3 and page 48/col. 1). Fitzmaurice's palmtop monitor is one part of a larger computer system (See e.g. page 41/Fig. 2) and it follows the system of Mackay may be extended to support Fitzmaurice's palmtop monitor as an auxiliary display as another tablet device for capturing information.

Fitzmaurice further explains its palmtop unit is attached to a 6D input device to detect the position and orientation of the palmtop unit (page 43/col. 2) such that the information displayed on the palmtop unit corresponds to the physical area over which the palmtop unit is positioned (page 43/col. 1). Fitzmaurice discloses, for example, the palmtop unit displays weather information for a corresponding region on a map where the palmtop unit is positioned over the region of interest (page 45/Fig. 6). It follows Fitzmaurice's palmtop unit may be applied to the writing medium or graphics tablet of Mackay for displaying information concerning the corresponding region of interest with the graphics tablet serving as the point of reference for Fitzmaurice's 6D input device for determining the position of the palmtop unit in relation to the tablet.

Furthermore, Rekimoto teaches the combination of physical interfaces with a tablet display surface and means for tracking the position of the physical interfaces with respect to the tablet display surface.

Rekimoto discloses a data-tile system with a flat display surface/tablet 11 and a plurality of tiles 50 with RF-ID tags to be placed on the display surface 11 to activate a particular display for the corresponding region or tile of the display surface 11 (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2). Rekimoto explains pen input 12 may be performed on the activated tile area (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2). Rekimoto likewise explains its tiles are transparent to achieve a contextual lens effect for displaying information concerning the underlying display surface/tablet (Fig. 1; col. 10/lines 35-57). It follows Mackay may be modified to support RF-ID technology to allow physical interfaces to determine their position in relation to the tablet.

Therefore, the combination of Mackay, Fitzmaurice and Rekimoto discloses the limitations of claim 18.

For the remaining claims, Applicants argue for their allowance based on their dependence from independent claim 18. It follows the remaining claims are rejected for the reasons set forth in the following Detailed Action.

DETAILED ACTION

Claim Objections

6. Claims 23-30 is objected to because of the following informalities: these claims recite a “data processing device” instead of the “data processing system” as recited in independent claim 18. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18-19, 23 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackay et al., *The A-Book, An Augmented Laboratory Notebook for Biologists*, ERCIM News No. 46, July 2001 (hereinafter "Mackay") in view of Fitzmaurice, *Situated Information Spaces and Spatially Aware Palmtop*, Communications of the ACM, Association for Computing Machinery, New York, Vol. 36, No. 7, July 1, 1993 and Rekimoto et al. (U.S. Patent 6,795,060, hereinafter "Rekimoto").

For claim 18, Mackay discloses a user interface device having a surface being responsive to a writing of handwritten signs for generating first input digital data said first input digital data comprising sign data and position data, wherein said sign data represent a digital version of the handwritten signs and position data represent the position of the handwritten signs relative to said surface (disclosing a computer-augmented laboratory notebook (page 52) with a prototype having a WACOM graphics tablet to capture hand-writing (page 53/Fig. 2); disclosing the electronic notebook captures an electronic or digital version of each stroke and associates the stroke with the appropriate page (page 53); further disclosing the electronic notebook is capable of recording underlined text to allow other users to click and follow a link to additional information (page 53/Fig. 5); it must be understood the electronic notebooks records

Art Unit: 2628

position data to ensure the underlined text and associated links are displayed at the proper location of the page).

Mackay does not disclose a personal digital assistant (PDA) having a PDA display and a PDA user input interface, said PDA being adapted to simultaneously display primary data on said PDA display and enable the entry of secondary data through said PDA user input interface, the personal digital assistant being responsive to the entry of secondary data for generating second input digital data, said second input digital data comprising the secondary data in association with the primary data; processing code comprising a display function adapted to generate display digital data from the first input digital data, said display digital data being for use in said PDA display; wherein: the personal further include tracking means adapted to determine PDA position data, such position data representing the position of the PDA display relative to said surface of the user interface device, said display function in said processing code is arranged to perform a selection among the first input digital data based on the matching between position data and PDA position data, and to generate said display digital data from the sign data which correspond to said selection. However, these limitations are well-known in the art as disclosed in Fitzmaurice.

Fitzmaurice discloses a personal digital assistant in the form of an integrated palmtop unit/hand-held monitor with an input controller and output display (page 43/col. 1). Fitzmaurice discloses the palmtop unit serves as an information lens near physical objects and the contents of the display (primary data) are affected by a user's gestures and movements (page 43/col. 1). Fitzmaurice further discloses the palmtop unit allows

Art Unit: 2628

users to electronically annotate objects (secondary data) (page 46/col. 2-3) with pen input enabling users to handwrite electronic notes and annotations where the notes and associations are associated with objects displayed (primary data) by the palmtop unit (page 47/col. 3 and page 48/col. 1). Fitzmaurice's palmtop monitor is one part of a larger computer system (See e.g. page 41/Fig. 2) and it follows the system of Mackay may be extended to support Fitzmaurice's palmtop monitor as an auxiliary display as another tablet device for capturing information.

Fitzmaurice further explains its palmtop unit is attached to a 6D input device to detect the position and orientation of the palmtop unit (page 43/col. 2) such that the information displayed on the palmtop unit corresponds to the physical area over which the palmtop unit is positioned (page 43/col. 1). Fitzmaurice discloses, for example, the palmtop unit displays weather information for a corresponding region on a map where the palmtop unit is positioned over the region of interest (page 45/Fig. 6) and it follows Fitzmaurice's palmtop unit may be applied to the writing medium or graphics tablet of Mackay for displaying information concerning the corresponding region of interest.

A person having ordinary skill in the art (PHOSITA) at the time the invention was made would find it obvious to modify Mackay with the teachings of Fitzmaurice.

Fitzmaurice is analogous art in dealing with tablet-based systems (page 47/col. 3 and page 48/col. 1). Fitzmaurice discloses its palmtop unit is advantageous in serving as a bridge between electronic information and physical objects in providing a spatially aware information lens to present contextual information to a user (page 43/col. 1).

Consequently, a PHOSITA would incorporate the teachings of Fitzmaurice into Mackay

Art Unit: 2628

implementing a palmtop unit to serve as a bridge between electronic information and physical objects in providing a spatially aware information lens to present contextual information to a user.

Examiner finds the combination of Mackay and Fitzmaurice disclose a user interface device and a personal digital assistant for displaying data corresponding to the surface of the user interface device. In any case, these limitations are well-known in the art as disclosed in Rekimoto.

Rekimoto discloses a data-tile system with a flat display surface/tablet 11 and a plurality of tiles 50 with RF-ID tags to be placed on the display surface 11 to activate a particular display for the corresponding region or tile of the display surface 11 (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2). Rekimoto explains pen input 12 may be performed on the activated tile area (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2). Rekimoto likewise explains its tiles are transparent to achieve a contextual lens effect for displaying information concerning the underlying display surface/tablet (Fig. 1; col. 10/lines 35-57). It follows Mackay may be modified to support RF-ID technology to allow physical interfaces to determine their position in relation to the tablet.

A PHOSITA at the time the invention was made would find it obvious to modify Mackay and Fitzmaurice with the teachings of Rekimoto. Rekimoto is analogous art in dealing with tablet-based systems (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2). Rekimoto discloses its user interface is advantageous in combining a visual interface with physical interfaces to instinctively and intelligently express visual data (col. 3/lines 11-16). Consequently, a PHOSITA would incorporate the teachings of Rekimoto into

Art Unit: 2628

Mackay and Fitzmaurice to combine a visual interface with physical interfaces to instinctively and intelligently express visual data. Therefore, claim 18 is rendered obvious to a PHOSITA at the time the invention was made.

For claim 19, Mackay as modified by Fitzmaurice and Rekimoto discloses wherein said processing code further comprises a timestamp function adapted to be responsive to a generation of first input digital data and/or second input digital data for generating time data, wherein the time data represent time of generation of said first input digital data and/or of said second input digital data (Mackay discloses the a-book captures an electronic copy of the handwritten data and the corresponding correct page and time-stamped record (page 53)).

For claim 23, Mackay as modified by Fitzmaurice and Rekimoto discloses wherein the position data of the first input digital data comprises zone identifier data, said zone identifier data identifying a zone on said surface which is intended for the entry of handwritten signs (Mackay discloses the prototype as a computer-augmented laboratory notebook with a plurality of zones for the input of handwritten data (pages 52-53/Figs. 1-2); Rekimoto further discloses a tablet with a plurality of tiled regions or zones for accepting handwritten input from a pen (Figs. 14-39); Rekimoto discloses a data-tile system with a flat display surface/tablet 11 and a plurality of tiles 50 with RF-ID tags to be placed on the display surface 11 to activate a particular display for the corresponding region or tile of the display surface 11 (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2)).

For claim 27, Mackay as modified by Fitzmaurice and Rekimoto discloses wherein the user interface device includes a pen arranged to enable a user to enter handwritten signs on said surface (Mackay discloses the prototype captures handwriting with a WACOM graphics tablet performed through the use of a pen where the inputted information may be subsequently accessed by other users (page 52/Figs. 2 and 5)).

For claim 28, Mackay as modified by Fitzmaurice and Rekimoto discloses wherein the user interface device includes a graphic tablet (Mackay discloses the prototype captures handwriting with a WACOM graphics tablet performed through the use of a pen where the inputted information may be subsequently accessed by other users (page 52/Figs. 2 and 5)).

For claim 29, Mackay as modified by Fitzmaurice and Rekimoto discloses wherein the user interface device comprises an electronic notebook having a surface defining a multiplicity of zones intended for the entry of handwritten signs (Mackay discloses the prototype as a computer-augmented laboratory notebook with a plurality of zones for the input of handwritten data (pages 52-53/Figs. 1-2); Rekimoto further discloses a tablet with a plurality of tiled regions or zones for accepting handwritten input from a pen (Figs. 14-39)).

For claim 30, Mackay as modified by Fitzmaurice and Rekimoto discloses a display device, wherein the processing code comprises a further display function adapted to generate further display digital data from the first input digital data, said digital data being for use in said display device (Fitzmaurice discloses its palmtop unit serves as an information lens near physical objects and the contents of the display

Art Unit: 2628

(primary data) are affected by a user's gestures and movements (page 43/col. 1) which allows users to electronically annotate objects (secondary data) (page 46/col. 2-3) with pen input enabling users to handwrite electronic notes and annotations where the notes and associations are associated with objects displayed (primary data) by the palmtop unit (page 47/col. 3 and page 48/col. 1) and it follows Fitzmaurice's palmtop unit may be applied to the writing medium or graphics tablet of Mackay for displaying information concerning the corresponding region of interest; Rekimoto further discloses a data-tile system with a flat display surface/tablet 11 and a plurality of tiles 50 with RF-ID tags to be placed on the display surface 11 to activate a particular display for the corresponding region or tile of the display surface 11 (Fig. 1; col. 10/lines 1-20 and 64-67; col. 11/lines 1-2)).

9. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackay et al., *The A-Book, An Augmented Laboratory Notebook for Biologists*, ERCIM News No. 46, July 2001 (hereinafter "Mackay") in view of Fitzmaurice, *Situated Information Spaces and Spatially Aware Palmtop*, Communications of the ACM, Association for Computing Machinery, New York, Vol. 36, No. 7, July 1, 1993 and Rekimoto et al. (U.S. Patent 6,795,060, hereinafter "Rekimoto") further in view of Butcher et al. (U.S. Patent 6,355,889, hereinafter "Butcher").

For claim 20, Mackay as modified by Fitzmaurice and Rekimoto discloses an interaction module adapted to be responsive to the generation of first input digital data and/or second input digital data for determining whether said first input digital data

Art Unit: 2628

and/or said second input digital data comprise data representing a link to data which are stored in an external database, and in such a case, to convert said data into link data for the first input digital data and/or second input digital data, and to enable a user to perform an activation of said link data (Mackay discloses the prototype captures the handwritten data and associates it with the correct page and a time-stamped on-line record of the data along with subsequent processing operators such as underline and box operations (page 53/Fig. 5); Mackay discloses the user can access an on-line index (or database) to acquire information specified by the operations associated with handwritten data such as the underline and box operations (page 53/Fig. 5); Mackay discloses a computer display to display a processing operator associated with handwritten text such as underlined text where a user may click on the underlined text to activate the link to a corresponding on-line version of the original source of information (page 53/Fig. 5)).

Examiner finds Mackay discloses a database in the form of an on-line index for enabling users to access links to on-line information. In any case, the use of database linking to a tablet-based system is well-known in the art as disclosed in Butcher.

Butcher discloses a data processing system with a computer and a tablet for the input of handwritten information (Fig. 1; col. 2/lines 53-61). Butcher discloses a personal information management (PIM) tool with a PIM database and a stroke (ink) database with time stamped entries (Fig. 2; col. 2/lines 1-21). Butcher discloses links are created between entries in the two databases for corresponding time stamps to allow users to

Art Unit: 2628

retrieve handwritten notes and other information for an entry in the PIM database (col. 2/lines 1-21).

A PHOSITA at the time the invention was made would find it obvious to modify Mackay, Fitzmaurice and Rekimoto with the teachings of Butcher. Butcher is analogous art in dealing with electronic tablets for handwritten input and the access of handwritten information in a similar manner to traditional paper notebooks (col. 1/lines 5-46).

Butcher discloses its invention is advantageous in linking entries between two databases for allowing users to subsequently access information (col. 1/lines 50-55).

Consequently, a PHOSITA would incorporate the teachings of Butcher into Mackay, Fitzmaurice and Rekimoto to implement the linking of entries between two databases for allowing users to subsequently access information. Therefore, claim 20 is rendered obvious to a PHOSITA at the time the invention was made.

For claim 21, Mackay as modified by Fitzmaurice, Rekimoto and Butcher disclose wherein said processing code further comprises a remote access function adapted to be responsive to the activation of link data of first input digital data and/or second input digital data for accessing said external database (Mackay discloses the user can access an on-line index (or database) to acquire information specified by the operations associated with handwritten data such as the underline and box operations (page 53/Fig. 5); Mackay discloses a computer display to display a processing operator associated with handwritten text such as underlined text where a user may click on the underlined text to activate the link to a corresponding on-line version of the original source of information (page 53/Fig. 5); Butcher discloses a data processing system with

Art Unit: 2628

a computer and a tablet for the input of handwritten information (Fig. 1; col. 2/lines 53-61); Butcher discloses a personal information management (PIM) tool with a PIM database and a stroke (ink) database with time stamped entries (Fig. 2; col. 2/lines 1-21); Butcher discloses links are created between entries in the two databases for corresponding time stamps to allow users to retrieve handwritten notes and other information for an entry in the PIM database (col. 2/lines 1-21)).

For claim 22, Mackay as modified by Fitzmaurice, Rekimoto and Butcher disclose memory organized with a storage structure, wherein said storage structure is adapted to maintain a relationship between first input digital data and/or second input digital data and the time data as generated by the timestamp function (Butcher discloses a data processing system with a computer and a tablet for the input of handwritten information (Fig. 1; col. 2/lines 53-61); Butcher discloses a personal information management (PIM) tool with a PIM database and a stroke (ink) database with time stamped entries (Fig. 2; col. 2/lines 1-21); Butcher discloses links are created between entries in the two databases for corresponding time stamps to allow users to retrieve handwritten notes and other information for an entry in the PIM database (col. 2/lines 1-21)).

10. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackay in view of Fitzmaurice and Rekimoto further in view of Fekete et al., *Using the Multi-Layer Model for Building Interactive Graphical Applications*, In Procs. Of UIST '96, 1996 (hereinafter "Fekete").

For claim 24, Mackay as modified by Fitzmaurice and Rekimoto discloses zone identifier data comprise level identifier data and zone identifier data per se, wherein the level identifier data represent one of several levels of one zone, such that one zone can be broken down into several levels (Mackay discloses the prototype as a computer-augmented laboratory notebook with a plurality of zones for the input of handwritten data (pages 52-53/Figs. 1-2); Mackay discloses representing data as separate layers (levels) of information with hand-writing as a primary layer and additional layers to provide annotations, explanations, interpretations and other additional information (page 53)).

Examiner finds Mackay discloses the arrangement of data in levels or layers for the reasons described above. In any case, these limitations are well-known in the art as disclosed in Fekete.

Fekete discloses a multi-layer model with layers to distinguish between layers for visualization, feedback and interaction management (Abstract at page 109; Section 4 "The Multi-Layer Model" at pages 110-111) where a layer may be a stroke layer corresponding to handwritten input from a pen (Section 4 "The Multi-Layer Model" at page 111).

A PHOSITA at the time the invention was made would find it obvious to modify Mackay, Fitzmaurice and Rekimoto with the teachings of Fekete. Fekete is analogous art in dealing with interactive graphical editors as applied to tablet-based systems (page 116). Fekete discloses its multi-layer model is advantageous for specializing layers to take advantage of available resources to efficiently manage the graphic structure and

Art Unit: 2628

optimize redisplay of objects (page 110). Consequently, a PHOSITA would incorporate the teachings of Fekete into Mackay, Fitzmaurice and Rekimoto to implement a multi-layer model for specializing layers to take advantage of available resources to efficiently manage the graphic structure and optimize redisplay of objects. Therefore, claim 24 is rendered obvious to a PHOSITA at the time the invention was made.

For claim 25, Mackay as modified by Fitzmaurice, Rekimoto and Fekete discloses said surface of the user interface device has at least one zone with an input mask, said first input digital data further comprising input mask data, the input mask data representing a digital version of said input mask (Mackay discloses the prototype as a computer-augmented laboratory notebook with a plurality of zones for the input of handwritten data (pages 52-53/Figs. 1-2); Mackay discloses representing data as separate layers (levels) of information with hand-writing as a primary layer and additional layers to provide annotations, explanations, interpretations and other additional information (page 53); Fekete discloses a layer within its multi-layer model corresponding to a stroke layer for handwritten input from a pen (Section 4 "The Multi-Layer Model" at page 111)).

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mackay in view of Fitzmaurice and Rekimoto further in view of Fekete further in view of Butcher.

For claim 26, Mackay as modified by Fitzmaurice, Rekimoto, Fekete and Butcher discloses a memory organized with a storage structure, wherein the zone identifier data comprise level identifier data and zone identifier data per se, the input mask data of the

Art Unit: 2628

first input digital data being stored in relationship with level identifier data representing a particular level of said zone (Mackay discloses the prototype as a computer-augmented laboratory notebook with a plurality of zones for the input of handwritten data (pages 52-53/Figs. 1-2); Mackay discloses representing data as separate layers (levels) of information with hand-writing as a primary layer and additional layers to provide annotations, explanations, interpretations and other additional information (page 53); Fekete discloses a layer within its multi-layer model corresponding to a stroke layer for handwritten input from a pen (Section 4 "The Multi-Layer Model" at page 111); Butcher discloses a data processing system with a computer and a tablet for the input of handwritten information (Fig. 1; col. 2/lines 53-61) with a personal information management (PIM) tool having a PIM database and a stroke (ink) database with time stamped entries (Fig. 2; col. 2/lines 1-21) to create links between entries in the two databases for corresponding time stamps to allow users to retrieve handwritten notes and other information for an entry in the PIM database (col. 2/lines 1-21) and it follows Mackay may be accordingly modified to support a database for storing zone and level information).

The rationale for combining the references is incorporated from claims 20 and 24.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2628

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES TSENG whose telephone number is (571) 270-3857. The examiner can normally be reached on Monday-Friday 8-5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, XIAO M. WU can be reached on (571) 272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2628

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHARLES TSENG/
Examiner
Art Unit 2628

/XIAO M. WU/
Supervisory Patent Examiner, Art Unit 2628